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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,432	03/05/2001	Christophe Chevance	PF980059	1692

7590 04/19/2005

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/786,432

Applicant(s)

CHEVANCE ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,6,8,9,12 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-4,7,10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's arguments filed with respect to claims 1-13 on 11/29/04 have been fully considered but they are not persuasive.
2. Claims 1-4, 7, 10, and 11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Kerdranvrat in view of Lee, as was set forth in the prior Office Action of 7/28/04.
3. The Applicant presents five arguments contending Examiner Parsons' rejection of claims 1-4, 7, 10, and 11 under 35 U.S.C. 103(a) as being unpatentable over Kerdranvrat in view of Lee. However, after a careful consideration of the arguments presented, and further scrutiny of the applied references, the Examiner must respectfully disagree for the reasons that follow.

After summarizing the salient features of the invention (Amendment of 11/29/04: page 5, lines 14-21; page 6, lines 1-7), the Applicant argues that the applied Kerdranvrat reference fails to disclose "a stage of reassignment of a vector to a block by selecting one movement vector from among N predominant vectors, wherein the predominant vectors are the ones of the group of vectors belonging to the movement vector field of said current image and at least to the movement vector field of a preceding image..." as in the claims, but asserts that Kerdranvrat discloses choosing dominant vectors from only the current image (Amendment of 11/29/04: page 6, lines 8-31; page 7, lines 1-7). The Examiner respectfully disagrees. It is noted that the citation in question mentions getting motion vectors from a pointwise field of motion (Kerdranvrat: column 2, lines 9-19). Further description of Kerdranvrat's pointwise field of motion discloses that generating for each point in the current image, a motion vector V characterizing the displacement between the preceding image and the current image (Kerdranvrat: column 3, lines

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30-40). Figure 7 shows that E1, the pointwise field of motion is an input to the vector filtering occurring prior to reassignment (Kerdranvrat: column 10, lines 18-45). Accordingly, since this pointwise motion field is shown as an input, the Examiner asserts that the limitation is met.

Secondly, the Applicant asserts that Kerdranvrat fails to show “only one histogram for two or more images...” as in the claims (Amendment of 11/29/04: page 7, lines 7-29). The Examiner respectfully disagrees. Since Kerdranvrat discloses using the pointwise field of motion as discussed above, the resultant histogram would be used to classify/assign vectors between two successive images (Kerdranvrat: column 5, lines 12-68; column 6, lines 1-30). Accordingly, the Examiner maintains that this limitation is met, as well.

After summarizing the Lee reference (Amendment of 11/29/04: page 8, lines 30-33; page 9, lines 1-5), the Applicant assert that Lee fails to teach “a stage of reassignment of a vector to a block by selecting one movement vector from among N predominant vectors, wherein the predominant vectors are the ones of the group of vectors belonging to the movement vector field of said current image and at least to the movement vector field of a preceding image...” as in the claims (Amendment of 11/29/04: page 8, lines 6-13). In response to applicant's arguments against the individual Lee reference, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Since the Kerdranvrat reference addresses this issue as above, the Lee reference would also address this feature from its combination with the primary reference.

Furthermore, the Applicant asserts that there is no motivation to combine the references since the Kerdranvrat is concerned with segmenting the field of motion for subsequent

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processing whereas Lee is intended to reduce computational requirements of motion estimation processing, and would not make the proposed combination based on the problem remedied by the instant invention (Amendment of 11/29/04: page 8, lines 14-32). The Examiner strongly disagrees. Firstly, since the Kerdranvrat segmentation algorithm includes using the rigorous calculation of a majority criterion (Kerdranvrat: column 3, lines 55-60) which is similar in calculation to the one espoused in the secondary reference (Lee: column 5, lines 35-45), one of ordinary skill in art would look to Lee's advantage of reducing computational requirements in Kerdranvrat's segmentation algorithm using its majority criterion. Additionally, both involve the manipulation of sets of motion vectors to arrive at a final motion vectors (Lee: column 6, lines 1-12; Kerdranvrat: column 10, lines 15-45), and this would further compel one of ordinary skill in the art to see if Lee's teaching as a whole has any bearing on the primary reference. Furthermore, Kerdranvrat even discloses using motion estimation itself (Kerdranvrat: column 8, lines 15-25). It is unclear to Examiner how the Applicant could arrive at such an egregiously incorrect conclusion to suggest that these two references are non-analogous. However, that being said, it is true that Examiner Parson's supplied motivation as drawn from the Lee reference to modify the Kerdranvrat reference addresses a different problem from the one allegedly addressed by the instant invention. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In this case, the Lee-Lee combination has not been shown by the Applicant's to be non-obvious, and the Examiner is entitled to a different rationale to make a suggested combination, along as that rationale would be obvious to one of ordinary skill in the

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art. Accordingly, the Examiner notes that the combination made by Examiner Parsons of the Lee and Lee reference is proper.

Lastly, the Applicants argue that any system resulting from the combination of Lee with Lee would not result in the system of the instant invention (Amendment of 11/29/04: page 9, lines 1-12). The Examiner respectfully disagrees. Since the Examiner has shown that each reference addresses the reassignment feature of the claims, it certainly wouldn't function in the manner as asserted by the Applicant (Amendment of 11/29/04: page 9, lines 2-5), and would read on the instant invention.

#### *Allowable Subject Matter*

4. Claims 5-6, 8-9, 12-13 are allowed.

The combination of elements of claims 5-6, 8-9, and 12-13 uses a different assignment method for the predominant motion vectors which are neither anticipated nor obvious over the art of record. Accordingly, finally rejected claims 1-4, 7, and 10-11 are cancelled, the application would be placed in a condition for allowance.

#### *Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (571)-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao  
Primary Examiner  
Art Unit 2613

ANDY RAO  
PRIMARY EXAMINER

asr

April 14, 2005